

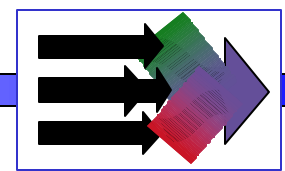
United States Army
Logistics Transformation Agency



SBCT POE Demonstration and CLOE

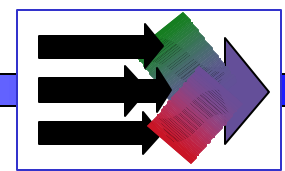
**Information Briefing for the
MTSSG
28 Aug 2003**

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Logistics Transformation Agency
(717) 770-7600



SBCT POE Demonstration and CLOE

- The SBCT 'Proof of Enablers' Demonstration provide the bridge to the future of Platform Health Management to get to a Common Logistics Operating Environment (CLOE).
- CLOE provides guidance to, and works with, the evolving maintenance & logistics support system, emerging doctrine & technology, and associated organizational processes for managing ED / EP in the Army.
- CLOE will drive maintenance & logistics interoperability among Legacy, Interim and Objective Forces
- CLOE is the Army implementation of CBM+



CLOE Purpose

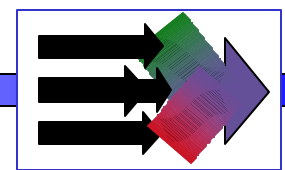
The Purpose Of CLOE Is To Ensure Sustainment Interoperability Among Self Reporting, Self-Diagnosing Platforms And The Objective Force Sustainment System Network To Provide The Highest Possible State Of

Operational Availability

Mission Capability

Combat Power

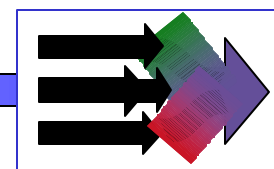
While Reducing The Logistics Footprint



CLOE Policy Memorandum

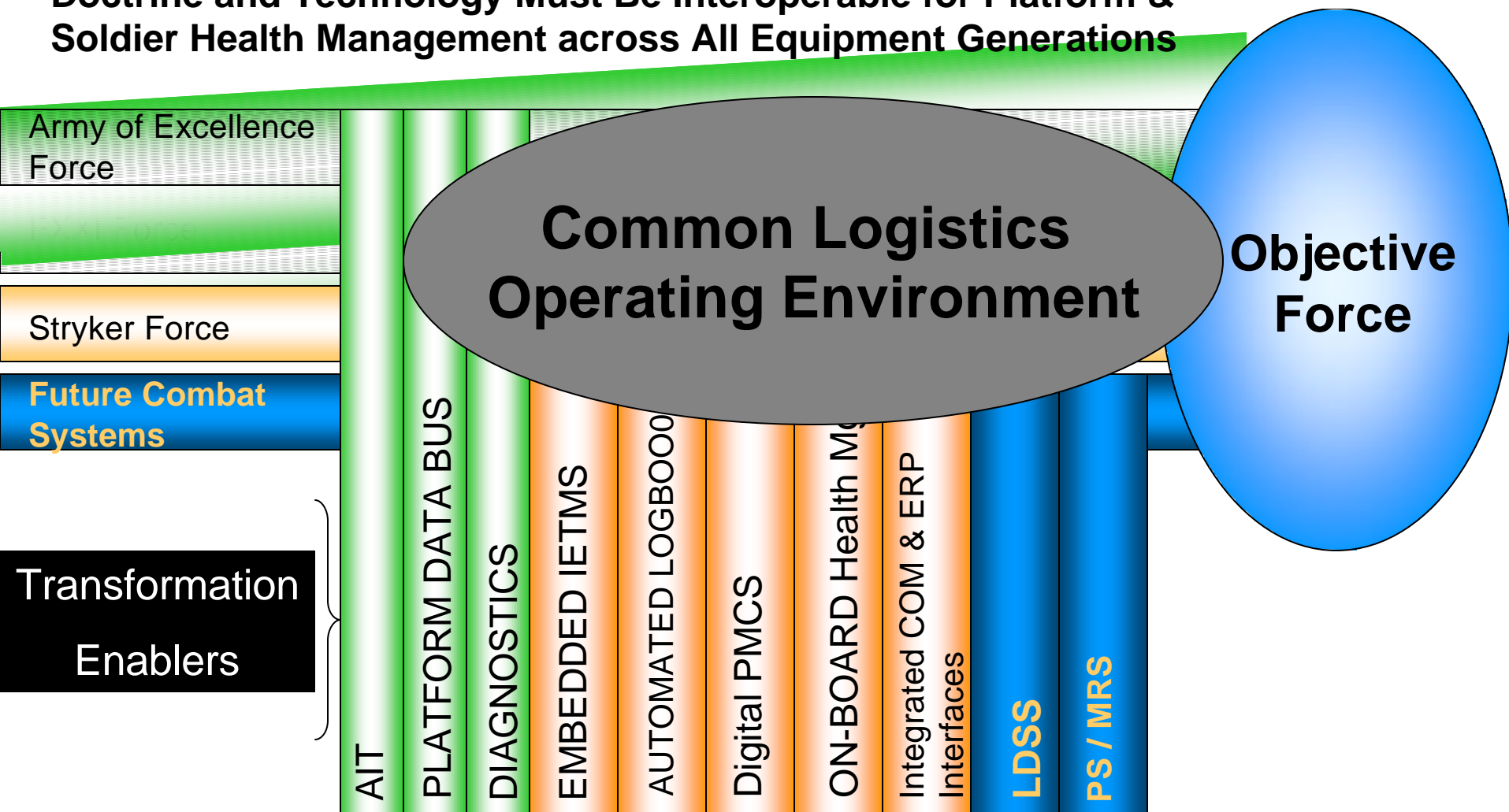
- CLOE Capabilities and Standards Policy Memo signed 25 Jul by Assistant Secretary of the Army (ALT) – *“The Army will employ a CLOE to capture, store, retrieve, and utilize logistics data from battlefield operating systems”*
- Policy states:
 - G-4, as the Responsible Official for Sustainment to *lead, coordinate, and implement* the CLOE
 - TRADOC must consider CLOE *common data standards, specifications, and protocols* for sensor-based, self-monitoring, self-reporting platforms and equipment when writing and updating operational capability documents for OF units.
 - Program Executives and Managers use CLOE-designated *common data standards, specifications and protocols* when acquiring critical information technologies
 - Program Executives and Managers *acquire access to platform/equipment technical data* for all ACAT I, II, and III systems
 - Program Managers and Managers and AMC MSCs will *make technical data available* to acquisition and sustainment communities using commercial PDM systems

LTA has been assigned as the Executive Agent for CLOE

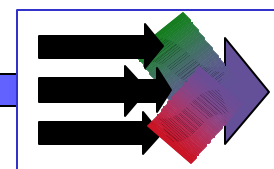


Common Logistics Operating Environment (CLOE)

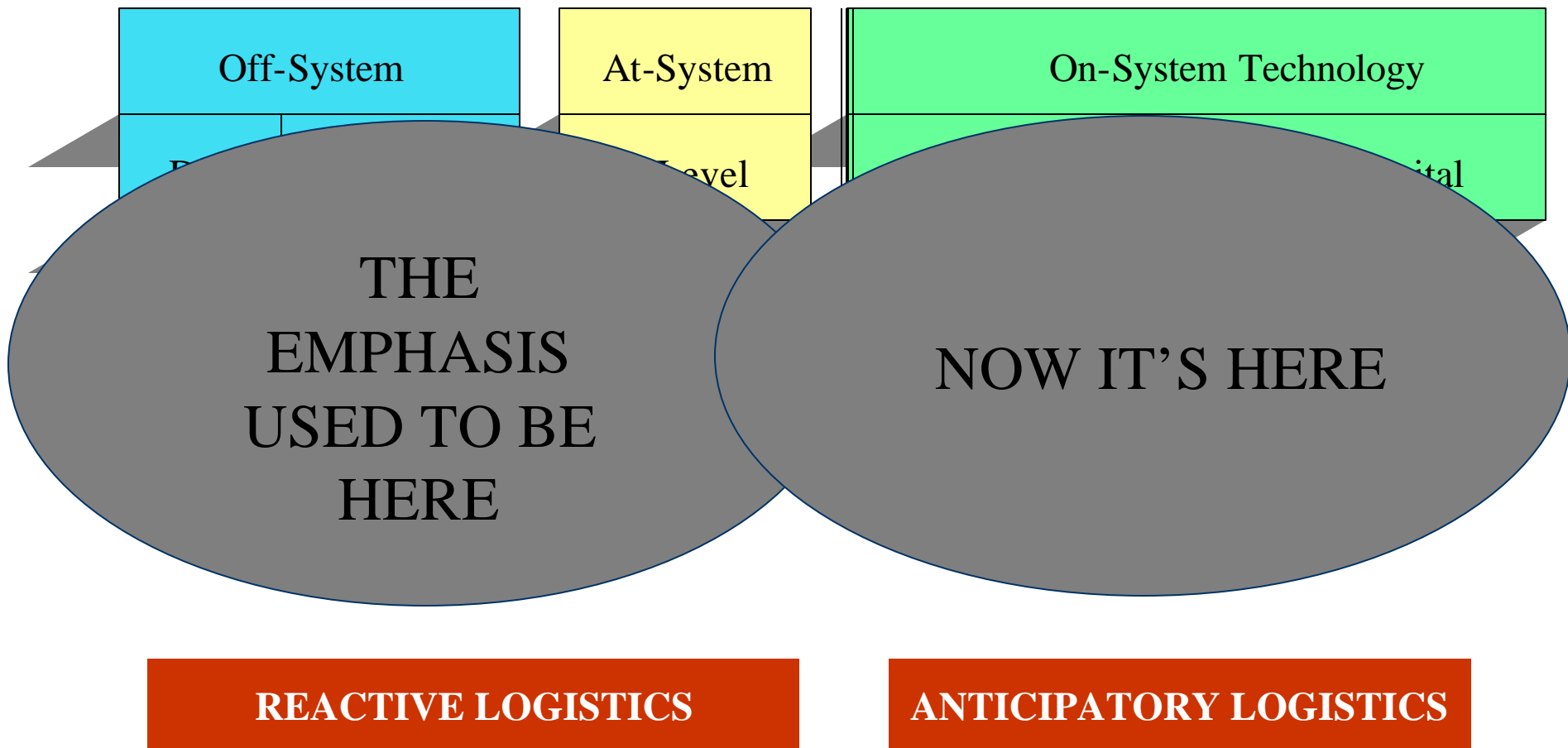
Doctrine and Technology Must Be Interoperable for Platform & Soldier Health Management across All Equipment Generations

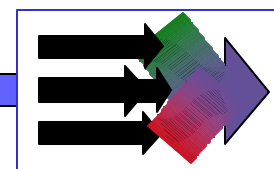


Sustaining The Transforming Army

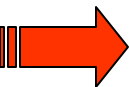


Logistics Transformation A Paradigm Shift



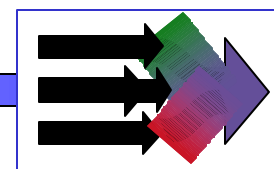


CLOE Is Focused on Condition-Based Maintenance (CBM)



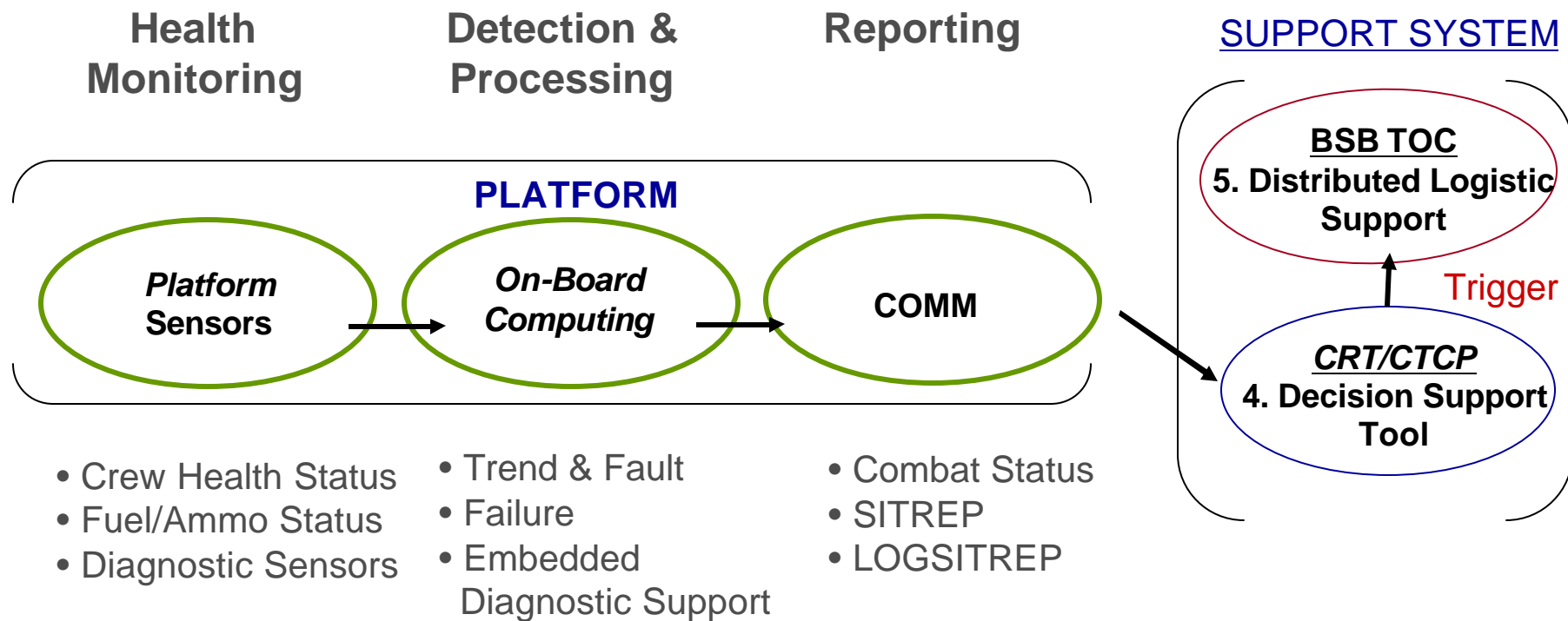
Well-Defined 'Lanes'

- **CLOE Is Leading The Transformation to Predictive Maintenance and Anticipatory Logistics**
 - Operational Architecture & Demonstrations
 - Interim / Current Force
 - Interoperability with FCS
- **CLOE Is Focused on Brigade & Below Tactical Maintenance & Logistics**
 - Platform & Network
- **CLOE Ensures End-End Data Integration with All Logistics Enterprise Users & Uses**
 - Business Processes Synchronized to GCSS-A Tactical Maintenance



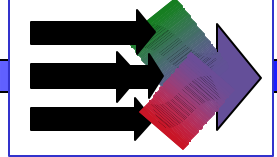
Health Management

“An Overarching Process”



Supports Current & Stryker Forces

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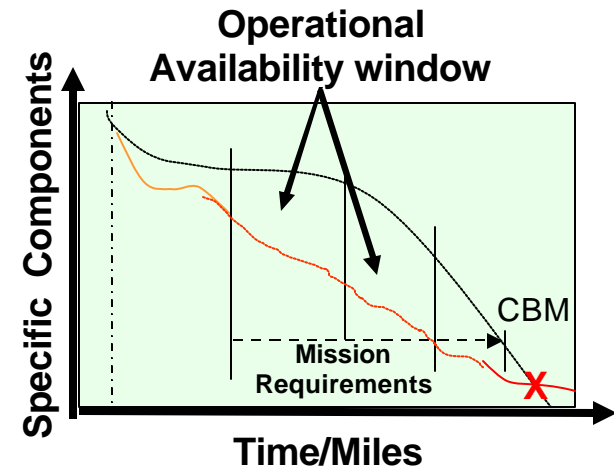
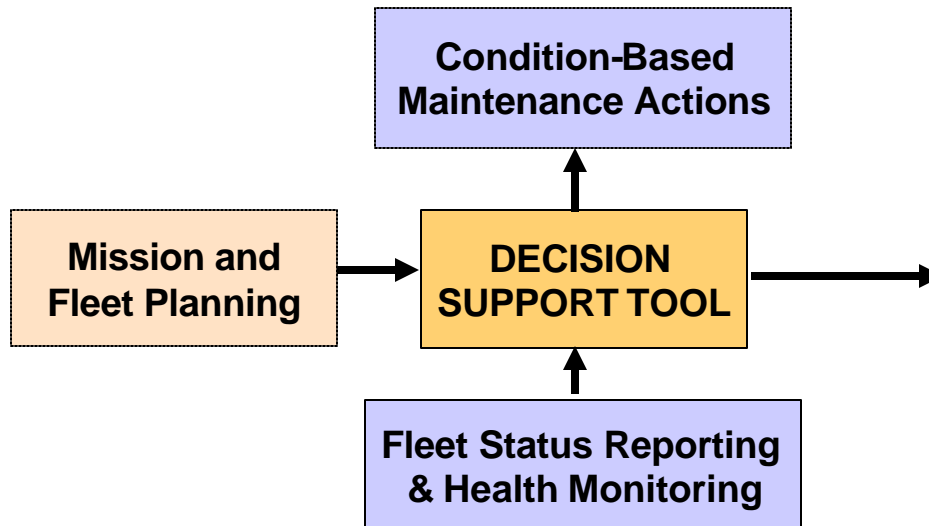


Health Monitoring Functionality

How do I determine a System's Operational Availability?

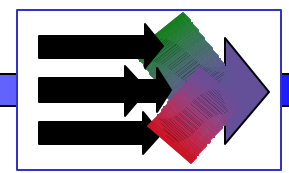
Health Management Process + Mission Planning:

- Incorporates Condition Health Monitoring
- Identifies where we are on the health curve
- Implements CBM Concepts
- Data is managed to trigger logistic support actions

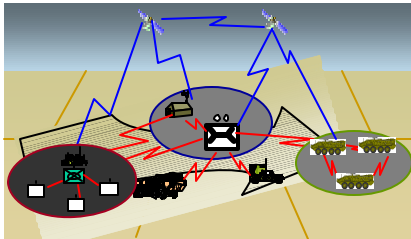


Result:

- **Increased Operational Availability**
- **Reduced Logistics Footprint**

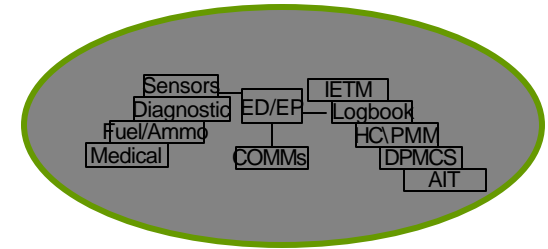


**SBCT PoE
OPERATIONAL
CONCEPT**



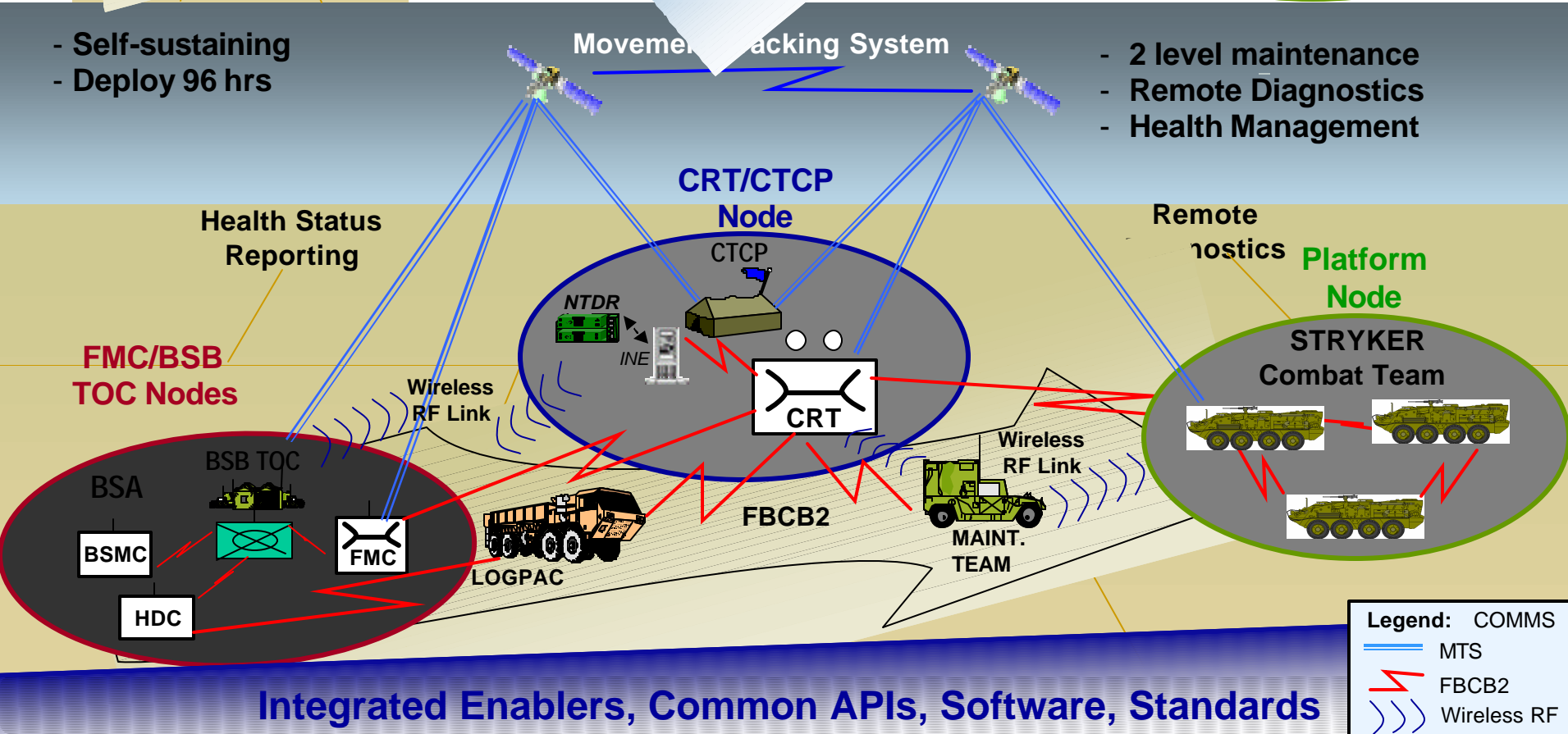
Operational Architecture

System Architecture



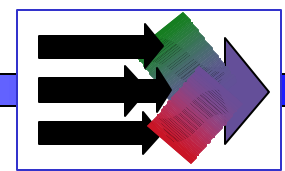
- Self-sustaining
- Deploy 96 hrs

- 2 level maintenance
- Remote Diagnostics
- Health Management



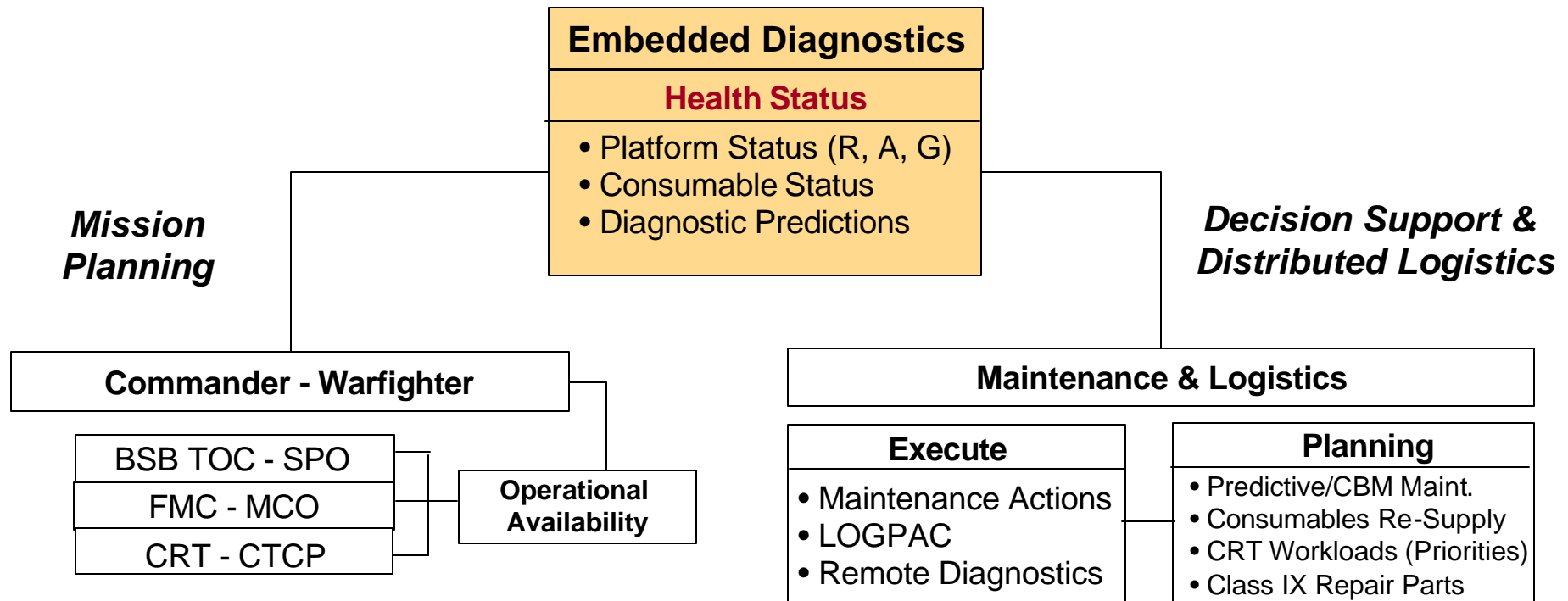
Integrated Enablers, Common APIs, Software, Standards

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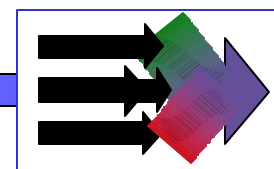
SBCT PoE Objectives

Demonstrate Warfighting Value of Self-Reporting Current & Stryker Force Platforms Interacting with Networked, Agile Sustainment System



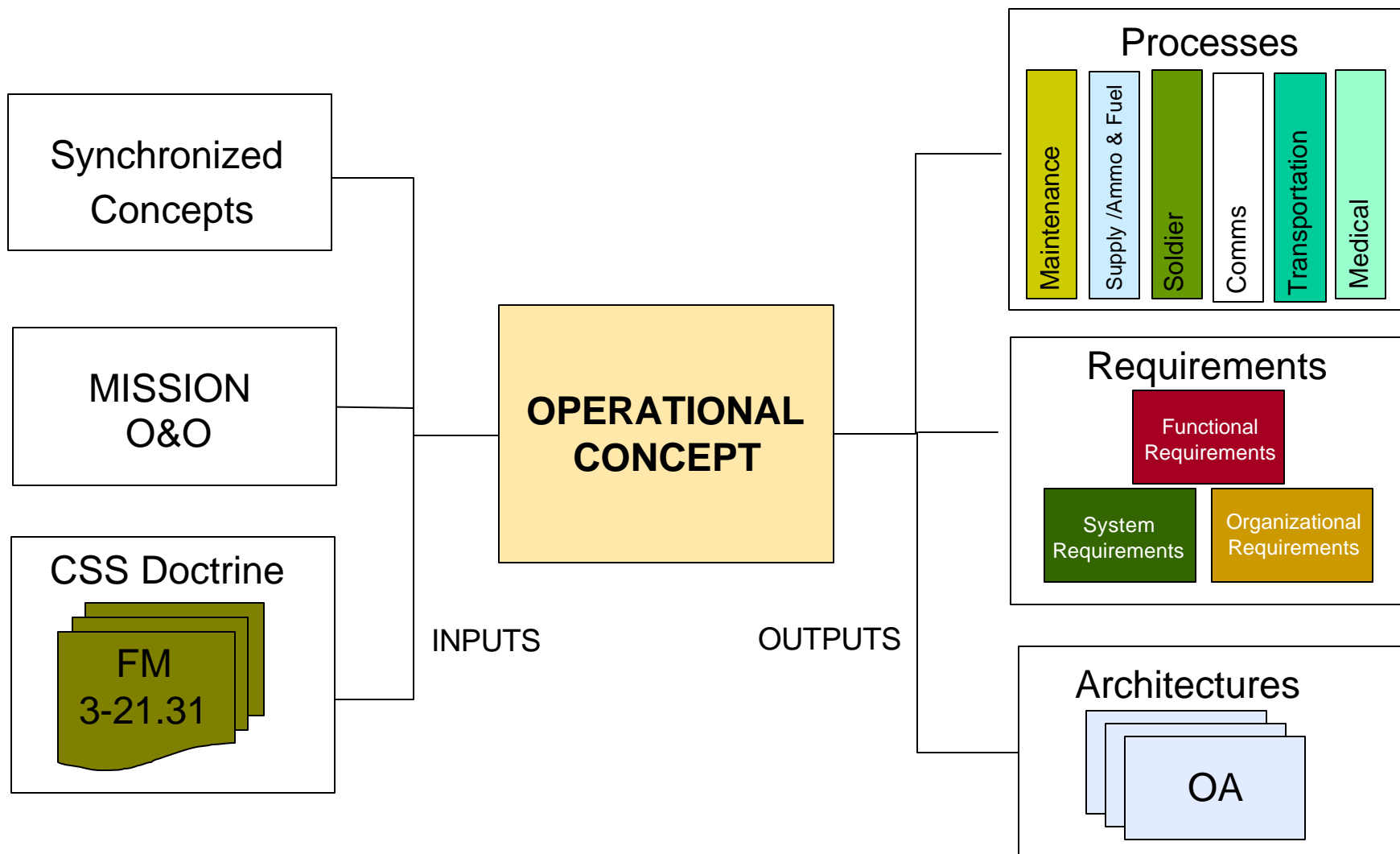
**Show Payback of Equipment Health Management
& Condition-Based Maintenance**

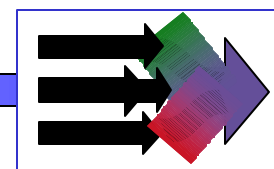
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SBCT PoE

Operational Concept Development





Platform Architecture

Integrated Weapon System Status and Health Management

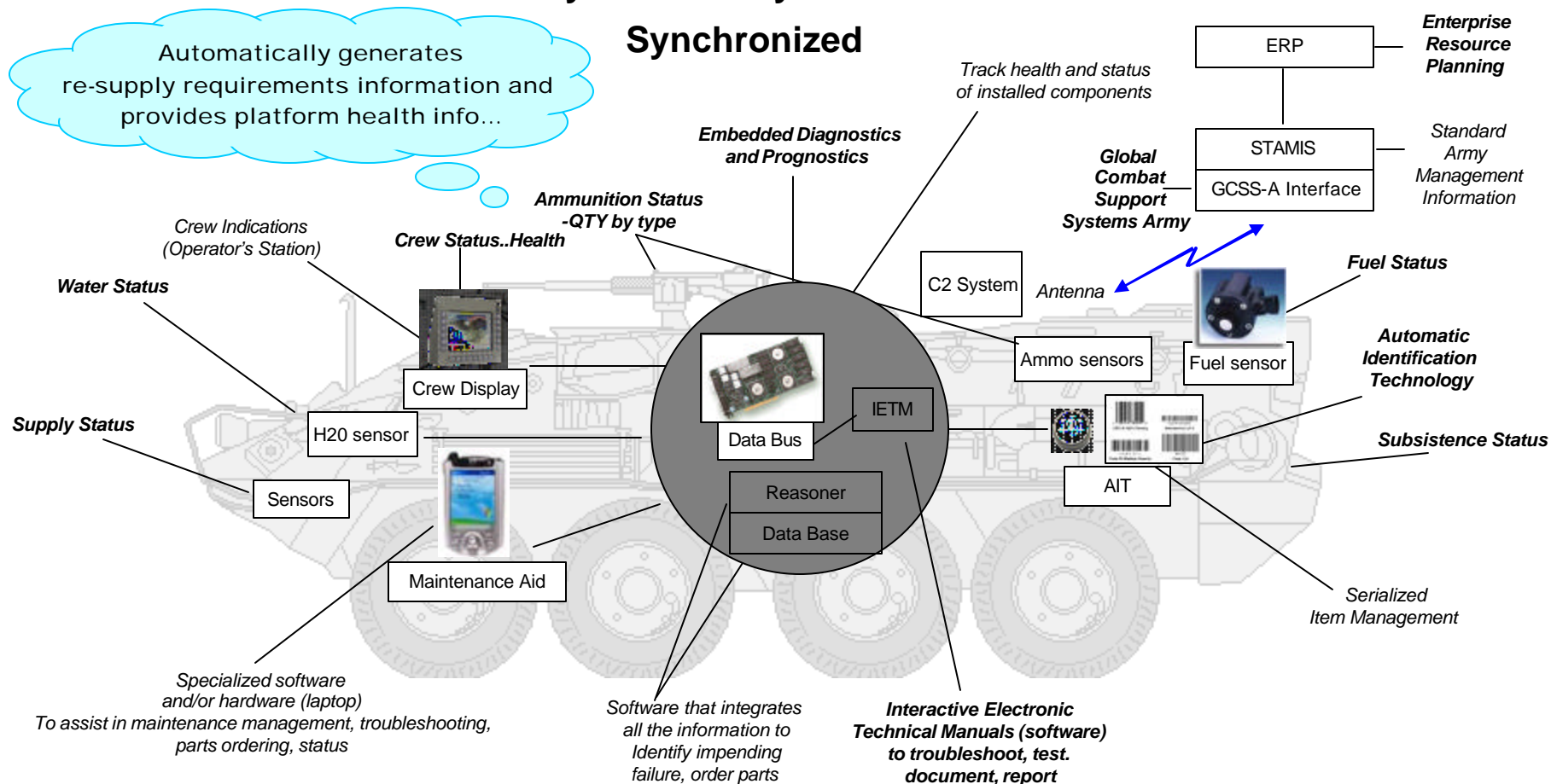
Sensor-Based

Self Monitoring

Self Reporting

Automatically feeds Army Shared Data Environment

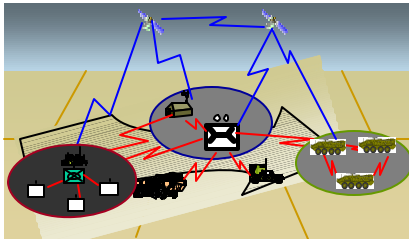
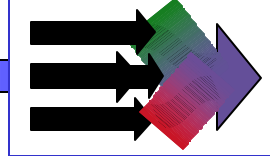
Synchronized



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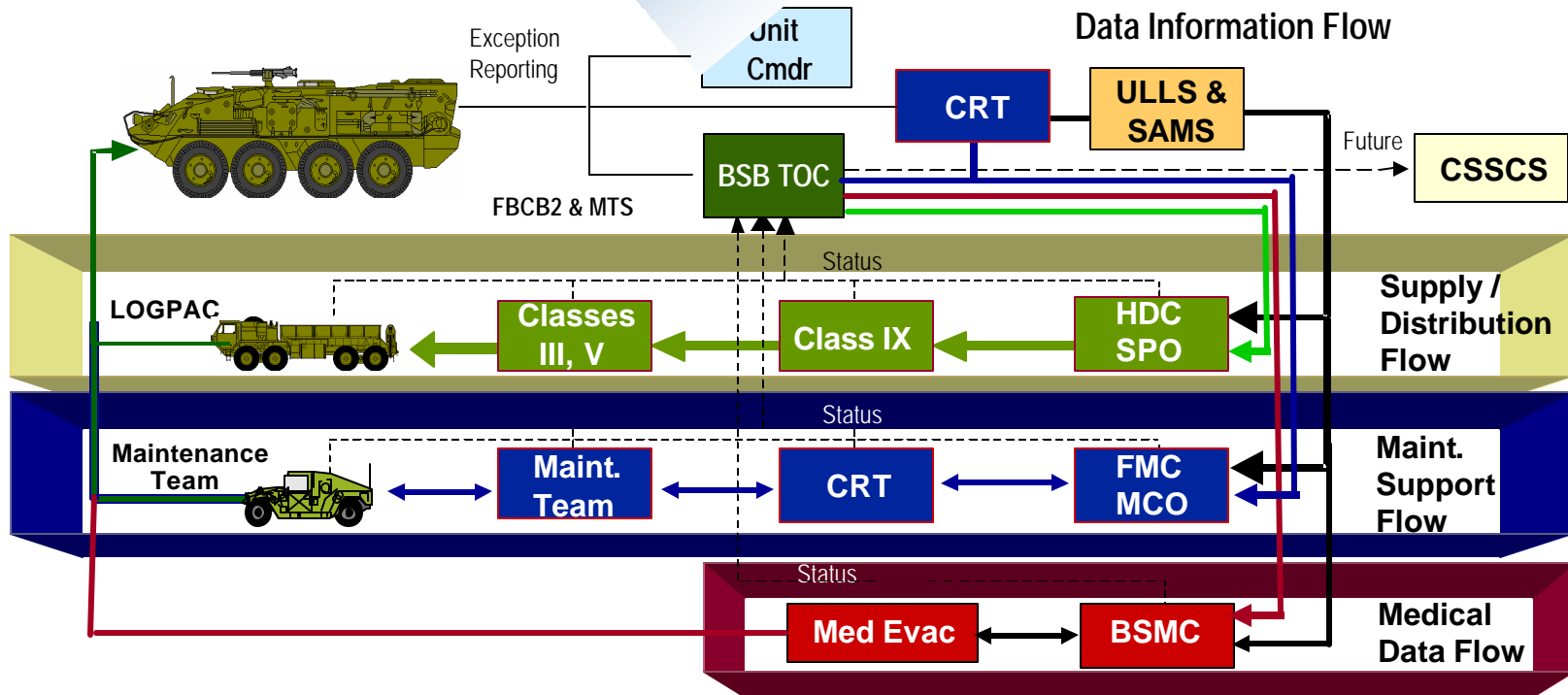
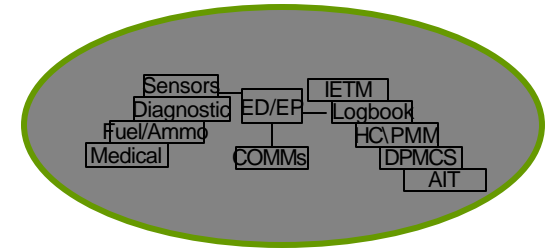
Sustainment Architecture



Operational
Architecture

**SBCT PoE
OPERATIONAL
CONCEPT**

System
Architecture

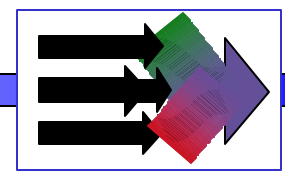


Platform Embedded Diagnostics/CBM

- Critical Data Exception Reporting
- Status Reporting - Crew, Fuel, Ammo, Diagnostic



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CLOE Applies Common Standards

Platform

GROUND

SAE – Vehicle Communications Data Bus Standards /
IEEE Ethernet

API – SAE Recommended Protocols

AIR

Mil-Std-1553 Avionics Data Bus

IEEE Ethernet / Fiber Optic Standards

Middleware

XML, SOAP, Web Services, J2EE

Communications

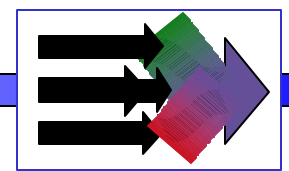
Sipernet, Nipernet, NSA Security Protocols;
IEEE 802.11 Wireless

ERP

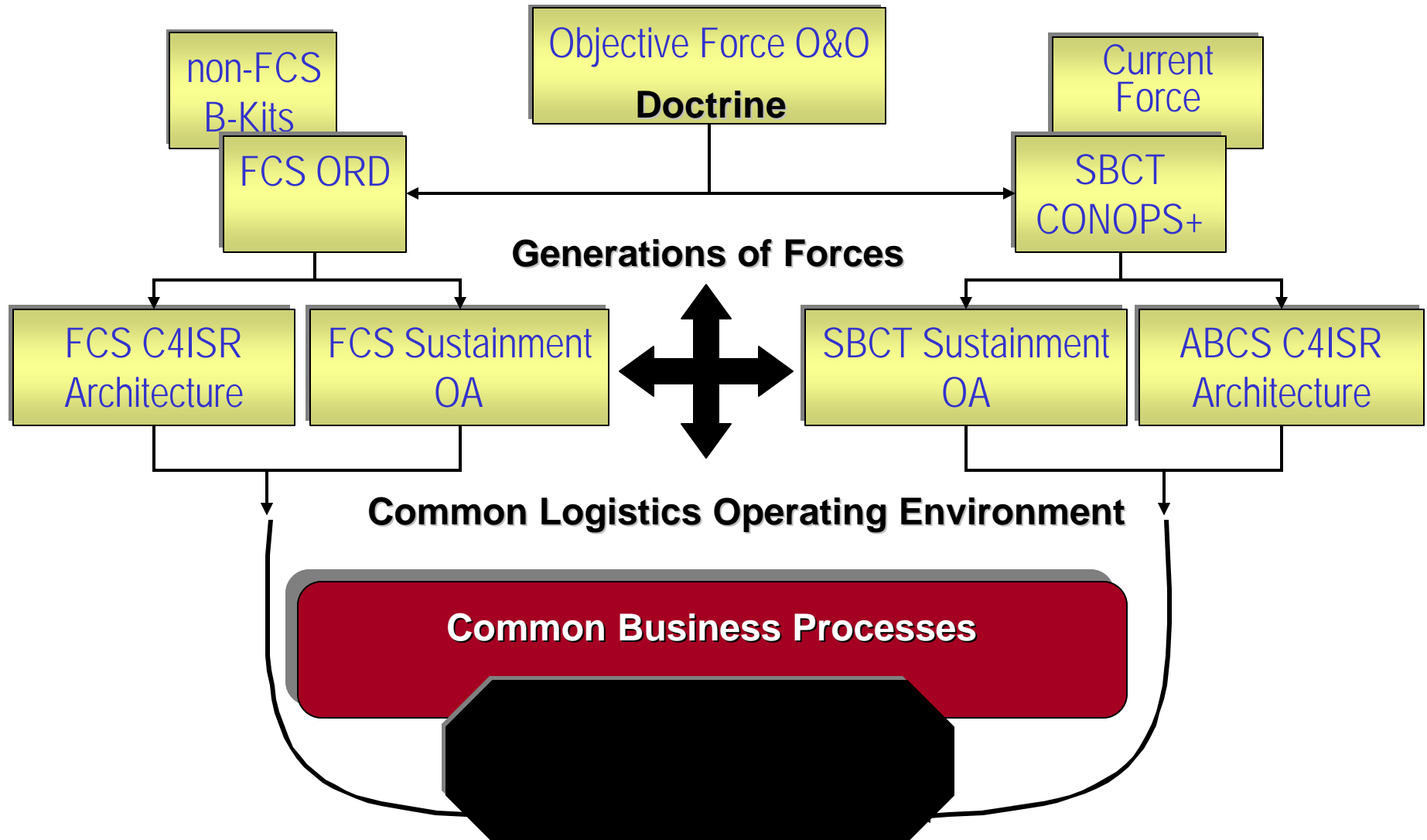
Mil-Std-3008, SAP OCI; MySAP Web Portals, MIMOSA

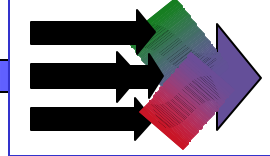
Architecture

DII-COE Compliance; Joint Technical Architecture – Army Compliance

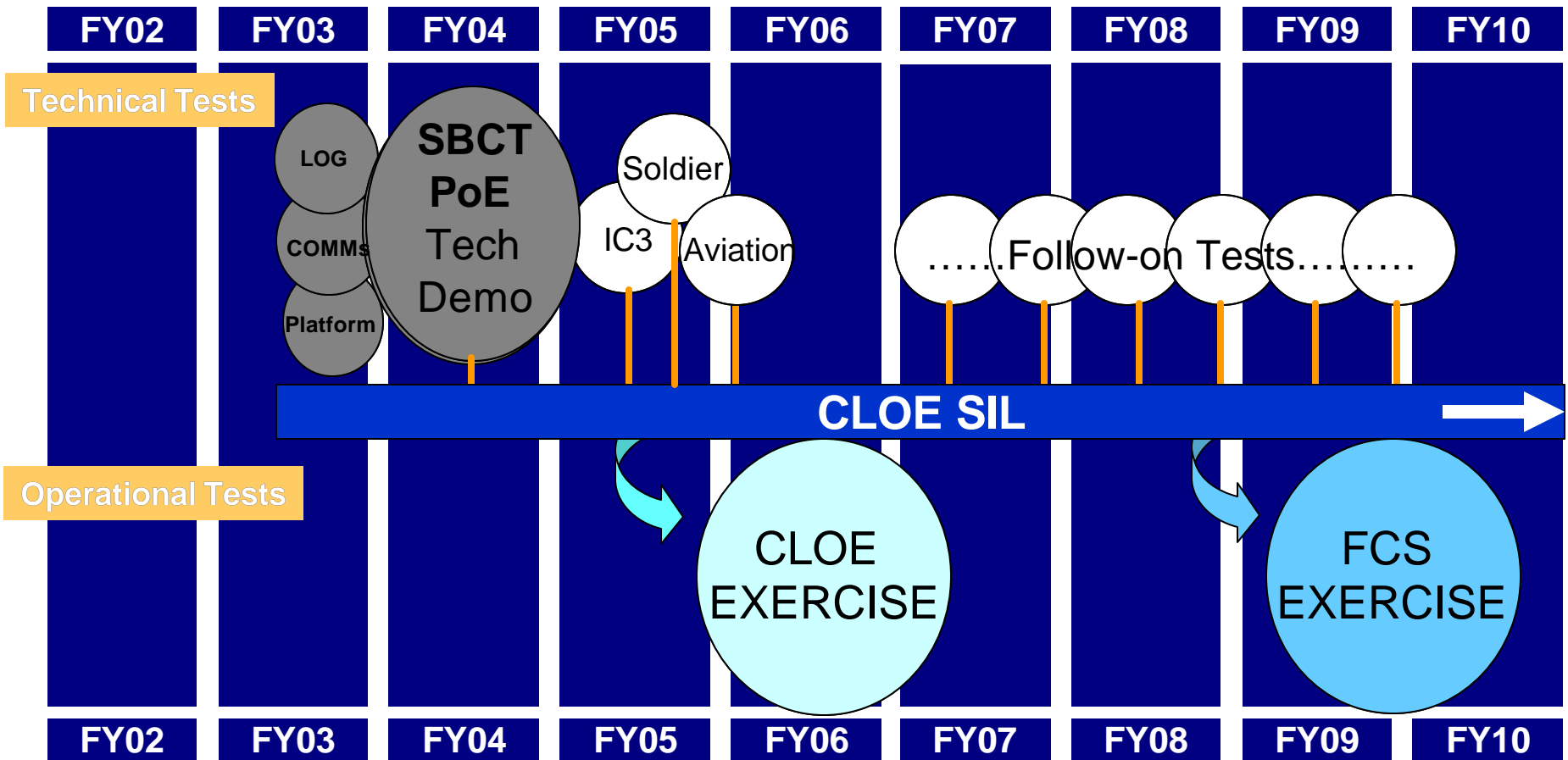


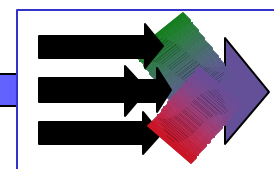
CLOE Scope Supports OF UA





Where Do We Go From Here





Thoughts to take away

- **CLOE Is A Collaborative, Living Process That Works With All Major Army Agencies, Organizations and Programs to Enable Logistics Transformation**
- **CLOE Is The Only Initiative That Addresses ARMY Sustainment Interoperability Among Current, Stryker And Objective Forces With Respect to Condition-Based Maintenance and Anticipatory Logistics**
- **The Synchronization of Sustainment Doctrine & Technology is an Outcome of the CLOE Process**
- **The Path For Platform Technology Insertion Goes Through the CLOE SIL**